Applicant: Manfred Engelhardt et al.

Serial No.: 10/048,192

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In the claims:

Please amend the claims as follows:

1. (Currently Amended) A method for fabricating a contact hole for a semiconductor memory component, having a silicon substrate, an intermediate dielectric layer arranged on said substrate, and an upper layer arranged on said intermediate dielectric layer, said upper layer being made of a material selected from the group consisting of a ferroelectric material and a material having a high dielectric constant, the method comprising:

forming a perforated mask on the upper layer, the mask including a material which exhibits temperature stability during a later deposition process;

etching the upper layer and a depression into the intermediate dielectric layer as far as a residual thickness using the perforated mask;

depositing a layer including O₃/TEOS-SiO₂ onto a structure thus obtained including the perforated mask;

removing the layer including O₃/TEOS-SiO₂ from a bottom of the depression by etching; and

thereupon lowering the depression by etching in order to produce the contact hole as far as an interface with the silicon substrate, the silicon substrate being uncovered, the layer including O₃/TEOS-SiO₂ serving as a lateral seal of the upper layer during the lowering of the depression;

after the uncovering of the silicon substrate at the bottom of the contact hole, the silicon substrate being spared, depositing a second layer including O₃/TEOS-SiO₂ into the contact hole and onto a top surface proximate to the contact hole;

wherein the perforated mask material is stripped prior to deposition of the second layer including O₃/TEOS-SiO₂.

2. (Previously Amended) The method as claimed in claim 1, wherein forming the perforated mask comprises forming a perforated mask including polyimide.

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3. (Previously Amended) The method as claimed in claim 1, wherein forming the perforated mask comprises forming a perforated mask including photoimide.

- 4-6. (Cancelled).
- 7. (Currently Amended) The method of claim 1, wherein selecting the material includes selecting a said upper layer comprises of a material from the group consisting of strontium bismuth tantalate, PZT, and barium strontium titanate.
 - 8-20. (Cancelled).